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PATENT AND  
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FISH & RICHARDSON P.C.  
SCOTT C. HARRIS  
4350 LA JOLLA VILLAGE DRIVE, SUITE 500  
SAN DIEGO, CALIFORNIA 92122

Under Secretary of Commerce For Intellectual Property and  
Director of the United States Patent and Trademark Office  
Washington, DC 20231  
www.uspto.gov



\*102081638A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

CORRECTED  
NOTICE

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF  
THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS  
AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER  
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE  
INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA  
PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD  
FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY  
CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723.  
PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE,  
ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY,  
SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/16/2002

REEL/FRAME: 012496/0009  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

## ASSIGNOR:

MALEKI, LUFTOLLAH

DOC DATE: 12/05/2001

## ASSIGNOR:

ILCHENKO, VLADIMIR

DOC DATE: 12/05/2001

## ASSIGNEE:

CALIFORNIA INSTITUTE OF TECHNOLOGY  
1200 EAST CALIFORNIA BOULEVARD  
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09925713  
PATENT NUMBER:FILING DATE: 08/08/2001  
ISSUE DATE:

MARGARET LASALLE, PARALEGAL  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

05-10-2002



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ER SHEET

-Y

Substitute Form PTO-1595  
 Attorney Docket No.: 08818-677001  
 Client's Ref. No.: CIT-3288 / CIT-3415

Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
1. Name of conveying party(ies): Luftollah Maleki and Vladimir Ichenko Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): California Institute of Technology 1200 East California Boulevard Pasadena, CA 91125  Additional names/addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: 12/05/2001	4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): 09/925,713 B. Patent No(s):  Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Name/address of party to whom correspondence concerning document should be mailed: SCOTT C. HARRIS PTO Customer No. 20985 Fish & Richardson P.C. 4350 La Jolla Village Drive, Suite 500 San Diego, California 92122	6. Total number of applications/patents involved: 1 7. Total fee (37 CFR §3.41): \$40 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.
DO NOT USE THIS SPACE	
9. Statement and Signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i>	
Per Scott C. Harris Reg. No. 32,030 Name of Person Signing	JAMES T. HAGLER REG. NO 40,631 Signature Date December 5, 2001
Total number of pages including coversheet, attachments and document: 2	

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## CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner of Patents, Washington, D.C. 20231

December 5, 2001  
 Date of Deposit

*Norman Green*  
 Signature

Norman Green  
 Typed Name of Person Signing Certificate

ASSIGNMENT

For valuable consideration, we, LUFTOLLAH MALEKI of 1230 Glen Oaks Boulevard, Pasadena, CA 91105, and VLADIMIR ILCHENKO of 2115 La Canada Crest, #111, La Canada, CA 91011, hereby assign to California Institute of Technology, a non-profit corporation having a place of business at 1200 East California Boulevard, Pasadena, CA 91125; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled OPTICAL-SENSING-BASED-ON WHISPERING-GALLERY-MODE MICROCAVITY, filed August 8, 2001, and assigned U.S. Serial Number 09/925,713; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

12/5/01  
Date

L. Maleki  
Luftollah Maleki

12/5/01  
Date

V. Ilchenko  
Vladimir Ilchenko

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Attorney's Docket No.: 06618-677001 / CIT-3268 / CIT-3415

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Luftollah Maleki, et al      Art Unit : 2877  
Serial No.: 09/925,713      Examiner : Unknown  
Filed : August 8, 2001  
Title : OPTICAL SENSING BASED ON WHISPERING-GALLERY-MODE  
MICROCAVITY

U.S. Patent and Trademark Office  
~~Assignment Division~~  
~~Box Assignments-CG-4~~  
1213 Jefferson Davis Hwy., Suite 320  
Washington, D.C. 20231

REQUEST TO CORRECT NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

Applicants request that the inventor's name be corrected on the Recordation Form Cover Sheet for the above case. The mistake was made by the Patent Office as evidenced by the Assignment and Recordation Form Cover Sheet, copies of which are enclosed.

Please correct the inventor's name to read as follows:  
**Vladimir Ilchenko.**

## CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.9(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

April 12, 2002

Date of Deposit

Signature

Sharon Gebhart

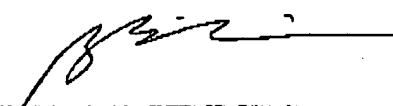
Typed or Printed Name of Person Signing  
Certificate

Attorney's Docket No.: 06618-677001/CIT-3268/CIT-3415

No fee is believed to be due. Please apply any charges or credits to our Deposit Account No. 06-1050.

Respectfully submitted,

Date: April 12, 2002

  
\_\_\_\_\_  
Scott C. Harris  
Reg. No. 32,030

BING AI  
**REG. NO 43,912**

Fish & Richardson P.C.  
PTO Customer No. 20985  
4350 La Jolla Village Drive, Suite 500  
San Diego, California 92122  
(858) 678-5070 telephone  
(858) 678-5099 facsimile

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SUM  
BYA

UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

NOVEMBER 01, 2001

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FISH & RICHARDSON P.C.  
SCOTT C. HARRIS  
4350 LA JOLLA VILLAGE DRIVE, SUITE 500  
SAN DIEGO, CALIFORNIA 92122



\*101830362A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/27/2001

REEL/FRAME: 012115/0428  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MALEKI, LUTFOLLAH

DOC DATE: 07/31/2001

ASSIGNOR:

YAO, XIAOTIAN S.

DOC DATE: 08/17/2001

ASSIGNOR:

ILCHENKO, VLADIMIR

DOC DATE: 08/22/2001

ASSIGNEE:

CALIFORNIA INSTITUTE OF TECHNOLOGY  
1200 EAST CALIFORNIA BOULEVARD  
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09816872

FILING DATE: 03/22/2001

PATENT NUMBER:

ISSUE DATE:

* No Docketing Required *
Reviewed by [Signature]
Reviewed by [Signature] Secretary
Initials: [Signature]

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LA JOLLA, CA

012115/0428 PAGE 2

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

08-31-2001

Substitute Form PTO-1595  
 Attorney Docket No.: 08818-805001  
 Client's Ref. No.: CIT 3188

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FEET

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Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
1. Name of conveying party(ies): Lutfollah Maleki, Xiaotian S. Yao and Vladimir Iichenko Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): California Institute of Technology 1200 East California Boulevard Pasadena, CA 91125
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: July 31, 2001; August 17, 2001; and August 22, 2001	Additional names/addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s).: 09/816,872 B. Patent No(s).: Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name/address of party to whom correspondence concerning document should be mailed: SCOTT C. HARRIS Fish & Richardson P.C. PTO Customer No. 20985 4350 La Jolla Village Drive, Suite 500 San Diego, California 92122	6. Total number of applications/patents involved: 1 7. Total fee (37 CFR \$3.41): \$40 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.
DO NOT USE THIS SPACE	
9. Statement and Signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i>  Bing Ai Reg. No. 43,312 Name of Person Signing  Signature  Date August 23, 2001  Total number of pages including coversheet, attachments and document: 4	

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I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner of Patents, Washington, D.C. 20231.

August 23, 2001  
 Date of Deposit

Signature  
 Norman Green

Norman Green  
 Typed Name of Person Signing Certificate



07/31/01 TUE 10:50 FAX

F&amp;R

005

Attorney Docket No. 06618-605001/CIT3188

ASSIGNMENT

For valuable consideration, we, LUTFOLLAH MALEKI of Pasadena, California,  
XIAOTIAN S. YAO of Diamond Bar, California, and VLADIMIR ILCHENKO of La Canada,  
California, hereby assign to: California Institute of Technology, a non-profit corporation  
having a place of business at: 1200 East California Boulevard, Pasadena, CA 91125; and its  
successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and  
interest throughout the world in the inventions and improvements which are subject of an  
application for United States Patent signed by us, entitled NON-SPHERICAL WHISPERING-  
GALLERY-MODE MICROCAVITY, filed March 22, 2001, and assigned U.S. Serial Number  
09/816,872; this assignment including said application, any and all United States and foreign  
patents, utility models, and design registrations granted for any of said inventions or  
improvements, and the right to claim priority based on the filing date of said application under  
the International Convention for the Protection of Industrial Property, the Patent Cooperation  
Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize  
the Assignee to apply in all countries in our name or in its own name for patents, utility models,  
design registrations and like rights of exclusion and for inventors' certificates for said inventions  
and improvements; and we agree for ourselves and our respective heirs, legal representatives and  
assigns, without further compensation to perform such lawful acts and to sign such further  
applications, assignments, Preliminary Statements and other lawful documents as the Assignee  
may reasonably request to effectuate fully this assignment.

Date: 7/31/01  
LUTFOLLAH MALEKI

Date: \_\_\_\_\_

XIAOTIAN S. YAO

Date: \_\_\_\_\_

VLADIMIR ILCHENKO

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FROM : General Photonics

FAX NO. : 909-902-5536

Aug. 17 2001 05:02PM P5  
0003

Attorney Docket No. 06618-605001/CIT3188

ASSIGNMENT

For valuable consideration, we, LUTFOLLAH MALEKI of Pasadena, California,  
XIAOTIAN S. YAO of Diamond Bar, California, and VLADIMIR ILCHENKO of La Canada,  
California, hereby assign to: California Institute of Technology, a non-profit corporation  
having a place of business at: 1200 East California Boulevard, Pasadena, CA 91125; and its  
successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and  
interest throughout the world in the inventions and improvements which are subject of an  
application for United States Patent signed by us, entitled NON-SPHERICAL WHISPERING-  
GALLERY-MODE MICROCAVITY, filed March 22, 2001, and assigned U.S. Serial Number  
09/816,872; this assignment including said application, any and all United States and foreign  
patents, utility models, and design registrations granted for any of said inventions or  
improvements, and the right to claim priority based on the filing date of said application under  
the International Convention for the Protection of Industrial Property, the Patent Cooperation  
Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize  
the Assignee to apply in all countries in our name or in its own name for patents, utility models,  
design registrations and like rights of exclusion and for inventors' certificates for said inventions  
and improvements; and we agree for ourselves and our respective heirs, legal representatives and  
assigns, without further compensation to perform such lawful acts and to sign such further  
applications, assignments, Preliminary Statements and other lawful documents as the Assignee  
may reasonably request to effectuate fully this assignment.

Date: \_\_\_\_\_

LUTFOLLAH MALEKIDate: 8/17/01XIAOTIAN S. YAO

Date: \_\_\_\_\_

VLADIMIR ILCHENKO

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08/22/2001 14:21 FAX 1 858 678 5099  
08/17/01 FRI 15:18 FAX

F&amp;R

005

Attorney Docket No. 06618-605001/CIT3188

ASSIGNMENT

For valuable consideration, we, LUTFOLLAH MALEKI of Pasadena, California, XIAOTIAN S. YAO of Diamond Bar, California, and VLADIMIR ILCHENKO of La Canada, California, hereby assign to: California Institute of Technology, a non-profit corporation having a place of business at 1200 East California Boulevard, Pasadena, CA 91125; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled NON-SPHERICAL WHISPERING-GALLERY-MODE MICROCAVITY, filed March 22, 2001, and assigned U.S. Serial Number 09/816,872; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Date: \_\_\_\_\_

LUTFOLLAH MALEKI

Date: \_\_\_\_\_

XIAOTIAN S. YAODate: 8/22/01VLADIMIR ILCHENKO

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